

**ANAEROBIC TREATMENT PROCESS FOR THE RAPID HYDROLYSIS
AND CONVERSION OF ORGANIC MATERIALS TO SOLUBLE AND
GASEOUS COMPONENTS**

Abstract of the Disclosure

5 An anaerobic digestion process capable of converting organic slurries to
precipitates, as well as soluble and gaseous products through a series of reactors or
process steps. The organic material is processed through three sequential steps
consisting of two anaerobic digestion steps and an intermediate liquid/solid separation
10 step. The sequential steps consist of first degrading rapidly metabolized soluble and
particulate constituents, contained in the influent, by mixing the influent to the first
reactor with an effluent from a second reactor containing a high concentration of
active biomass. Effluent from the first reactor is treated in a second step wherein the
soluble and particulate components are mechanically separated from an effluent
15 stream essentially free of particulate material but containing soluble products of
digestion. The particulate stream is transferred to the second anaerobic reactor
wherein the solely degrading materials are converted to soluble and gaseous products
of digestion as well as precipitates.